

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listing, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) A fibrous nanocarbon characterized by carbon hexagonal plane or stacking thereof, having two directional growth axis to grow two units of carbon nanofibers, ~~whereby~~wherein; (1) the  $sp^2$  hybrid carbon content of more than 95% per total content; (2) the interlayer spacing  $d_{002}$ , ( $d$ -spacing of C(002) profiles determined by X-ray diffraction method) of 0.3360 nm to 0.3800 nm; (3) the (002) plane stacking of more than 4 layers and the aspect ratio of more than 20; (4) the fiber cross-section width/thickness of 2.0 nm to 800 nm; (5) the inclination angle of hexagonal plane alignment for each composed carbon nanofibers to the fiber axis of 0 to 85 degrees; and carbon hexagonal planes stacking along the fiber axis, forming knots (nodes) at intervals of 5 nm to 100 nm, sharing partly the structure or stacking layers in carbon hexagonal planes of each composed carbon nanofibers and connecting periodically to each other, consequently forming ladder-like structure with open parts between each connection units, through which the inner side of the fibrous nanocarbon is open and connected to the outer space, and

wherein the carbon hexagonal planes align angled to the fibrous nanocarbon axis, and the two unit carbon nanofibers are combined by inter-fiber force or van der ~~walls~~ Waals force, forming pair structure as a single body.

2. (Currently Amended) A fibrous nanocarbon characterized by carbon hexagonal plane or stacking thereof, having two directional growth axis to grow two units of carbon nanofibers, whereby wherein: (1) the  $sp^2$  hybrid carbon content of more than 95% per total content; (2) the interlayer spacing  $d_{002}$ , (d-spacing of C(002) profiles determined by X-ray diffraction method) of 0.3360 nm to 0.3800 nm; (3) the (002) plane stacking of more than 8 layers; (4) the width/thickness of fiber cross-section of 2.0 nm to 800 nm; (5) the aspect ratio is more than 20; and (6) bonding of two unit carbon nanofibers with said (1) to (5) features at 0.5 nm~30 nm distance by the inter-fiber force between the two unit fibers from the beginning of fiber formation, and

wherein the carbon hexagonal planes align angled to the fibrous nanocarbon axis, and the two unit carbon nanofibers are combined by inter-fiber force or van der-walls Waals force, forming pair structure as a single body.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)